

**Gravatt, Dan**

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**From:** Washburn, Ben  
**Sent:** Tuesday, October 07, 2014 10:56 AM  
**To:** Jackson, Robert W.; Field, Jeff; Gravatt, Dan; Carey, Curtis; Peterson, Mary  
**Subject:** FW: EPA Questions  
**Attachments:** 2014\_10\_07\_WestLakeCAG\_MCE\_Questions.pdf; 2014\_06\_27\_EPA\_WestLakeQuestionsFollowUp.pdf; Resp\_ to June 27\_2014 Letter.pdf

To date, I have not received anything from the CAG, however Ed Smith sent this to the CAG with a CC to us.

Benjamin M. Washburn  
Public Affairs Specialist  
EPA Region 7  
(913) 551-7364

**From:** Ed Smith [mailto:[esmith@moenviron.org](mailto:esmith@moenviron.org)]  
**Sent:** Tuesday, October 07, 2014 10:43 AM  
**To:** West Lake Landfill Cag; Washburn, Ben  
**Subject:** EPA Questions

Dear West Lake CAG,

MCE attached questions for the EPA, which will hopefully be answered at the next CAG meeting. I did not see an email with a deadline for questions, so I hope it's not too late (maybe I missed it). Also attached are supporting documents related to question #3.

Best regards,  
Ed Smith

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Ed Smith  
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Missouri Coalition for the Environment  
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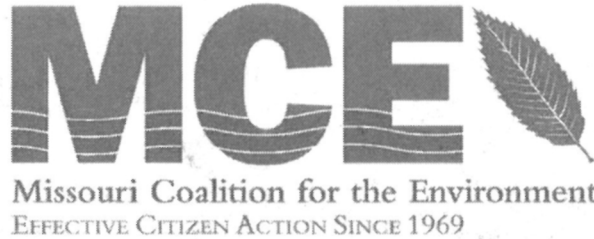
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Superfund

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October 10, 2014

Dear West Lake Landfill Community Advisory Group Executive Committee,

The Missouri Coalition for the Environment (MCE) would like the Environmental Protection Agency (EPA) Region 7 to provide answers to the following questions at the next Community Advisory Group (CAG) meeting on October 13, 2014.

1. When will air data be made available from the monitoring stations EPA has had up and running for more than three months now?
2. If it takes months to get information from the air monitoring equipment, how can residents be assured if there is a problem the EPA will catch it in time?
3. MCE continues to be concerned about EPA Region 7's unwillingness to test steam from the Gas Extraction Wells (GEWs) for radioactivity. The concern here is that the "candle sticks" burn off the methane and other gases tens of feet in the air. We are concerned that EPA Region 7 has not tested the concentrated gases before being emitted (either burned off or released due to GEW failure) into the air and we want to know if there is even low density alpha, beta, or gamma radioactivity being released. Of particular concern are alpha and beta emissions as the Department of Natural Resources only tests for overall gamma. The EPA Office of Research and Development (ORD) noted at the very least, Radon can be mobilized from the landfill faster in the presence of a smoldering fire. Given EPA Region 7 and the responsible parties continue to find radioactivity outside of the previously identified areas in the 2008 Record of Decision along with the fact the landfill management records available during the first several years the radioactive wastes were present at the landfill is not well understood, it's unreasonable for EPA Region 7 to assume there is only naturally occurring Radon in the smoldering South Quarry at the West Lake Landfill (referencing EPA Region 7 Question #5 response to MCE on July 18, 2014). The presence of Radium in the groundwater in the South Quarry could indicate there is a source for the contamination in the South Quarry itself, which sits upgradient from the sources of radiological contamination currently identified by EPA Region 7. EMSI, the contractor for the responsible parties, made the argument at a technical CAG meeting that radioactive groundwater in the South Quarry could not be from OU-1 because it is upgradient from OU-1, and therefore it must be naturally occurring, a claim MCE doubts.
  1. Will EPA Region 7 collect gas samples directly from the GEWs and test for radioactivity? Has this been done?
  2. Will EPA Region 7 request that OSHA conduct radiological screening of the gases from the GEWs if EPA does not feel it is under Superfund authority to conduct such a test?

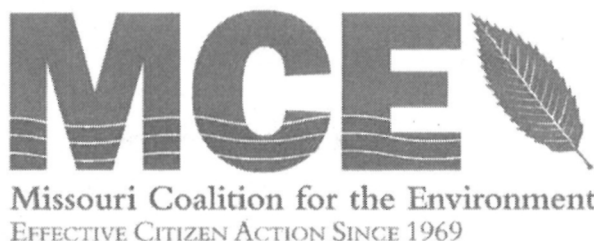
MCE has sent the below pictures in previous correspondence with EPA Region 7, which clearly shows workers not wearing any respiratory protection while working on a GEW while steam is present (photo credit to Pattonville Fire Protection District).



4. What meteorological data did EPA Region consider before placing its air monitors in the community?
5. Is all validated data related to where radioactivity is located and associated lab results from the testing of the isolation barrier currently available on the EPA website?
6. Will EPA Region 7 immediately provide the public with the more detailed plans for the Isolation Barrier it expects to receive from the responsible parties in mid-October, as referenced in EPA Region 7's West Lake Update from October 6, 2014?
7. Will EPA Region 7 immediately post the USGS groundwater report to its website once it is received?
8. Will EPA Region 7 immediately post the EPA ORD evaluations shared with Region 7 regarding the status of the smoldering landfill fire as referenced in the West Lake Update published on October 6, 2014?
9. Will EPA Region 7 expand the interagency agreement with the United States Army Corps of Engineers FUSRAP to include a full, comprehensive review of the West Lake Landfill documents, including the Remedial Investigation, Feasibility Study, Baseline Risk Assessment and other documents that supported the EPA Region 7 2008 Record of Decision?

Sincerely,

Ed Smith



June 27, 2014

Mr. Jeffrey Field  
MO/KS Remedial Branch Superfund Division, Region 7  
Environmental Protection Agency  
11201 Renner Blvd.  
Lenexa, KS 66219

**Re: EPA Region 7 response to MCE dated June 16, 2014**

The Missouri Coalition for the Environment (MCE) agrees with the Environmental Protection Agency (EPA) Region 7 that it will help streamline communication for MCE to submit questions through the Community Advisory Group (CAG). MCE will submit new questions through the CAG moving forward. Below are a list of questions MCE does not believe were properly answered and more clarification is needed. It does not seem prudent to have to submit a request for clarifying comments from EPA Region 7 through the CAG.

For organizational purposes, MCE's original question is listed first, EPA Region 7's response second, and MCE's clarifying comment or question third.

**Regarding the Administrative Settlement Agreement and Order on Consent for Removal Action – Preconstruction Work (CERCLA-07-2014-0002):**

1. **Section VII #26:** Will EPA Region 7 make the qualifications of all contractors being used at the site available to the public before determining if a contractor is suitable to work at the site?

**EPA Region 7:** The EPA is responsible for ensuring the timely and appropriate performance of the work required by the Order. The EPA has extensive and unique expertise determining the qualifications of contractors engaged in work at Superfund sites. Accordingly, the EPA bears sole responsibility for reviewing the qualifications and determining the suitability of contractors performing work under the Order. The qualifications of contractors being used the site, upon the EPA's receipt, are available to the public upon request.

**MCE:** Please consider MCE's original question as an outstanding request for EPA Region 7 to make public the approved contractors at the West Lake Landfill. If this request for is not sufficient, please inform MCE how EPA Region 7 would like to receive the request.



## General Questions

EPA Region 7 confirmed a smoldering or surface fire was not considered or evaluated before the 2008 Record of Decision (ROD), which called for capping and leaving the radioactive wastes at West Lake. Below are questions related to the smoldering fire (or future fires), the radioactive wastes at the West Lake Landfill, and other areas of concern.

1. Will EPA Region 7 conduct its own investigation into the impact a smoldering or surface fire will have on the RIM at the West Lake Landfill before the ROD Amendment? If no, are there plans for an independent assessment of the impacts outside of EPA, which are not conducted by the financially responsible parties? To date the only study conducted on the impacts of a smoldering fire on the radioactive wastes is the flawed conclusions submitted by EMSI to EPA Region 7 in January, 2014.

**EPA Region 7:** The EPA is conducting its own analysis of potential impacts that the SSE may have on the RIM. That analysis is being conducted through EPA's review – with ORD and state input – of the SSE report submitted by the Respondents in January 2014. The EPA expects that this process will result in a rigorously considered, scientifically-supported analysis.

**MCE:** Is the answer to the first and second question a yes or no? Will EPA Region 7 conduct its own independent assessment regarding the impacts of a smoldering fire, whether it is the ongoing smoldering fire or a future smoldering fire, where the financially responsible parties at the West Lake Landfill are not involved?

2. Will EPA Region 7 reevaluate the Baseline Risk Assessment to account for the risks posed if a smoldering or surface fire contacts the RIM? The EPA Office of Research and Development's memo, based on the 2008 ROD, determined that radioactive isotopes could migrate offsite in the groundwater or in the air if a smoldering landfill fire were in contact with RIM. It is critical that all risk assessments used to inform the ROD Amendment incorporate the exposure impacts a smoldering fire would have on the people around the landfill.

**EPA Region 7:** A risk assessment involves three key steps: characterizing the exposure to contamination (both exposure pathways and concentrations of the contaminant in various environmental media), evaluating the toxicity of the contaminant and calculating a numerical risk value based on that data. Because it is not possible to accurately predict whether, and how, a SSE may occur or interact with the RIM, the exposure component of the risk assessment cannot be quantified. As a result, the baseline risk assessment cannot reflect such risks. However, ORD's review of Respondents' SSE report qualitatively evaluates the potential future risks related to an SSE contacting RIM.

**MCE:** To be clear, there is an identified risk for offsite contamination if a smoldering fire reaches the radioactive wastes, but that will not be considered in the Baseline Risk Assessment, which will effectively zero out the risk to peoples' health?

3. Will EPA Region 7 conduct any tests to identify possible RIM between the eventual isolation barrier location and the ongoing smoldering fire in the South Quarry? Given the presence of previously unidentified RIM along the originally proposed isolation barrier, there is a legitimate concern that other previously unidentified RIM is between the eventual isolation barrier line and the smoldering fire. If yes, when will these details be made available? If no, why not?

**EPA Region 7:** The EPA has directed the Respondents to step outward from the known locations of RIM to establish the extent of the RIM. The previously un-identified RIM discovered during the gamma cone penetrometer work in late 2013 appears to be contiguous to the RIM identified during the Remedial Investigation. Based on the site history and existing data, the EPA has no evidence or suspicion that non-contiguous (i.e., "disconnected") bodies of RIM exist in the Bridgeton Sanitary Landfill.

**MCE:** The "step-out" method is what led to the Respondents and EPA Region 7 not identifying the RIM detected by the gamma cone penetrometer work leading up to the 2008 ROD. Why does EPA Region 7 refuse to use a grid method at West Lake like used at BMAC? What data or reports does EPA Region 7 believe show the RIM found during the gamma cone penetrometer work indicates the RIM is contiguous? MCE's comment letter on the preconstruction work plan (submitted to EPA Region 7 on June 10, 2014) indicate there is non-contiguous RIM in OU-1 Area 1, therefore it is reasonable to be concerned the "step-out" method will fail, again, to properly identify RIM. EPA Region 7 should be suspicious of RIM being on south side of the proposed isolation barrier for the sake of the people who live and work around the West Lake Landfill.

4. Did EPA Region 7 consider other options, like excavating the RIM in OU-1 Area 1, before agreeing that an "isolation barrier" is in the best long-term interest of protecting people around the landfill? If yes, please provide which options were discussed, when, and documents that support this claim. If no, why not?

**EPA Region 7:** The EPA is considering all appropriate alternatives and plans to issue a new Proposed Plan with a new public comment period once the re-evaluation is complete. The removal of the RIM was considered in detail by the EPA during the feasibility study completed in 2006 and as reflected in the EPA's 2006 Proposed Plan and the 2008 Record of Decision for the site. A detailed analysis of the possible effects of the SSE impacting the RIM was submitted to the EPA by Republic, and ORD reviewed and commented on that analysis. A supplemental Feasibility Study is currently being conducted by the responsible parties. Further analysis of the removal of the RIM will be included in that study and removal of the RIM will be considered by the EPA in any future Proposed Plan and Record of Decision for OU-1.

**MCE:** MCE understands that EPA Region 7 is in the process of a ROD Amendment and all it entails. The answer was not to the question that was asked. Did EPA Region 7, before agreeing with Attorney General Koster and Republic Services to the proposed isolation barrier, consider other alternatives (such as the removal of the identified RIM) on how to

protect the people around the West Lake Landfill from the possibility of the ongoing smoldering fire reaching the identified RIM in OU-1 Area 1? Please let MCE know if EPA Region 7 needs more clarity.

5. Does EPA Region 7 need to be asked by the Missouri Department of Natural Resources (MDNR) to test the steam generated by Gas Extraction Well (GEW) maintenance for radon and other radioactive isotopes? If not, will steam from GEWs be tested immediately? Equally, does EPA Region 7 need to be asked by the MDNR to equip people working on GEWs with the type of radioactive detection devices being used for the people working on the isolation barrier? If no, will EPA Region 7 equip people working on the GEWs with the same safety precautions being used for the isolation barrier immediately? Will EPA Region 7 provide a health physicist to monitor the work conducted at GEWs that produce a significant amount of steam? The EPA's Office of Research and Development noted that radon can be transported via steam and gases during a smoldering fire and EPA Region 7's documents show radioactive groundwater contamination throughout the landfill. MCE's concern is that people are currently working on GEWs that produce steam and they are not wearing any protective gear, specifically respiratory. Our confusion over jurisdiction stems from the fact that EPA Region 7 states it is responsible for the radioactivity at the site but DNR is responsible for the smoldering fire. See the below photograph for context:



**EPA Region 7:** Working conditions and protective measures applicable to the workers referenced in this question are under the jurisdiction of the Occupational Safety and Health Administration (OSHA), not MDNR or the EPA. On- and off-site air monitoring for radiation (no specifically associated with the work referenced in this question) have shown no elevated levels for radiation in the area.

**MCE:** EPA Region 7 staff has stated many times at public meetings that EPA Region 7 is responsible for the radioactivity at the West Lake Landfill. Meaning, if radioactivity from OU-1 has contaminated the groundwater and leachate, which appears to be the case, is EPA Region 7 responsible for the RIM that has moved beyond OU-1 and therefore responsible for Radon that has mobilized via steam/gas from the smoldering landfill fire in the south quarry?

6. Does EPA Region 7 need to be asked by MDNR to determine if the leachate being produced by the smoldering landfill fire is radioactive? If no, has EPA Region 7 tested the leachate to determine if it is contaminated with radioactive material and is safe for disposal at Metropolitan Sewer District (MSD)? Again, EPA Region 7 has made clear it is in charge of the radioactive material at the West Lake Landfill and therefore should be in charge of testing anything that leaves the landfill to determine if it is RIM.

**EPA Region 7:** Leachate collected from the Bridgeton Sanitary Landfill is being tested for radiation as well as many other contaminants. Several radionuclides as well as gross alpha, beta, and gamma have been detected. MSD as this analytical data, and it is their decision whether or not to accept the leachate.

**MCE:** MCE's concern here is the same as in the previous EPA Region 7 answer. EPA Region 7 is responsible for the radioactive materials at the West Lake Landfill, period. Therefore, is EPA Region 7 responsible for the leachate if it impacted by radioactive material? EPA Region 7 staff has stated at several public meetings that it responsible for the radioactive materials at the West Lake Landfill. What makes radioactive leachate any different than the radioactive materials in OU-1?

7. Will EPA Region 7 provide an official document from EPA Headquarters responding to the Wall Street Journal article alleging unprecedented secret review of the West Lake Landfill between EPA Region 7 and the National Remedy Review Board (NRRB)?

**EPA Region 7:** EPA Headquarters responded directly to the Wall Street Journal reporter. The NRRB review followed pre-established procedures.

**MCE:** EPA Region 7 did not answer the question. Will EPA Region 7 provide an official document from EPA Headquarters responding to the Wall Street Journal article alleging unprecedented secret review of the West Lake Landfill between EPA Region 7 and the National Remedy Review Board (NRRB)?

MCE is also interested in answers to questions asked by DNR's independent landfill fire expert, Todd Thalhamer, in a memo dated April 14, 2014.

1. How has US EPA accounted for storm water and erosion control issues in the past? And how would US EPA manage the storm water and erosion control once a fire has removed the vegetative cover from the Operable Units?

**EPA Region 7:** The EPA requests that clarification of this question in order for it to comprehend the intent and develop a response.

**MCE:** Radioactivity at the West Lake Landfill has been identified at the surface, which means it has been at or near the surface for the landfill for 41 years. What has EPA Region 7, since it took over the site in 1990, done to manage runoff from heavy rains or other reasons for erosion of the soils at the West Lake Landfill?

2. Should the local fire agency even respond to a vegetation fire within the Operable Units? Or does this responsibility fall to US EPA personnel?

**EPA Region 7:** The EPA has no authority or expertise in fighting fires, nor can we speak to that authority or decision. That question should be directed to the local fire department.

**MCE:** EPA Region 7 has a better understanding of the contaminants of concern at the West Lake Landfill than the Pattonville Fire Protection District (PFPD). MCE encourages EPA Region 7 to work with PFPD to develop a proper response protocol if this has not yet happened; especially given EPA Region 7 has been in charge of the West Lake Landfill site since 1990. To be clear, EPA Region 7 does not have any responsibility or regulatory authority in the case of a surface fire at the West Lake Landfill, especially if it were to occur within Operable Unit 1, where radioactive wastes have been identified as being at the surface?

3. If it is safe for the local fire agency to enter the radiological areas to extinguish a surface fire, what level of protection is needed for personnel to enter these areas?

**EPA Region 7:** The EPA has no expertise in fighting fires. Fire Departments are trained in the proper use of protective equipment for different scenarios. That question should be directed to the local fire department.

**MCE:** See MCE's comment and recommendation in our previous response to EPA Region 7's answer.

4. Should the vegetation just be allowed to burn off?

**EPA Region 7:** The EPA has no expertise in fighting fires. Fire Departments are trained in fire-fighting decision-making in different scenarios. That question should be directed to the local fire department.

**MCE:** MCE suggests EPA Region 7 work with the PFPD and other first responders to determine a response protocol to ensure the safety of first responders and surrounding communities; especially given that EPA Region 7 has been in charge of the site since 1990.

5. What actions should be taken by the emergency management agencies and first responders to protect the first responders and the surrounding community from such a wildfire (i.e., resulting smoke plume and blowing materials, such as ash)?

**EPA Region 7:** The EPA has no expertise in fighting fires. Fire Departments are trained in fire-fighting decision-making in different scenarios. In any active fire scenario, it is typically advisable for the public to stay out of the smoke by moving to another area or staying indoors. That question should be directed to the local fire department.

**MCE:** MCE suggests EPA Region 7 work with the PFPD and other first responders to determine a response protocol to ensure the safety of first responders and surrounding communities; especially given that EPA Region 7 has been in charge of the site since 1990.

6. What control methods have been implemented to prevent this from occurring? Should the heavy brush within the Operable Units be removed? Is the current cover in the Operable Units sufficient to prevent a surface fire from impacting the unclassified waste?

**EPA Region 7:** The ROD-selected remedy of capping the waste in place would prevent any future surface fires from affecting the buried wastes. There are no interim control methods (i.e., before implementation of the final remedy) to prevent surface fires from occurring.

**MCE:** MCE disagrees with EPA Region 7's conclusion that the ROD-selected remedy of capping the wastes in place would prevent any future surface fires from affecting the buried wastes. Drought and heavy rains happen. Just in the last three years the State of Missouri has experienced both drought and heavy rains within one calendar year. These events help lead to erosion. Given Superfund post-closure reviews only occur every 5 years, EPA Region 7 cannot say with absolute certainty that surface fire will not impact the buried radioactive wastes if the 2008 Record of Decision were to be implemented.

Thanks, as always, for EPA Region 7's time and commitment to MCE and the community for answering our questions and addressing our concerns.

Regards,



Ed Smith  
Safe Energy Director  
Missouri Coalition for the Environment  
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esmith@moenviron.org



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7**

11201 Renner Boulevard  
Lenexa, Kansas 66219

**JUL 18 2014**

Mr. Ed Smith  
Safe Energy Director  
Missouri Coalition for the Environment  
3115 South Grand Boulevard, Suite 650  
St. Louis, Missouri 63118

Dear Mr. Smith:

This letter is in response to your letter dated June 27, 2014, requesting clarification of the U.S. Environmental Protection Agency's responses to the questions you submitted on April 25, 2014. The responses below correspond to the headings and number sequencing used in your June 27, 2014 letter.

**Responses to General Questions**

1. The EPA, through ORD, has conducted an independent review of potential impacts that the SSE may have on the RIM. The ORD analysis has been made available to the public on the EPA's website.
2. The risk associated with an SSE contacting the RIM has been considered in a qualitative manner by ORD, but can not be quantified in a Baseline Risk Assessment.
3. The grid method used at BMAC was for surface gamma detection and soil sampling. For subsurface investigations, methods such as cone penetrometer studies are limited to areas most likely to contain contamination based on data from previous studies (i.e. a "step-out" method). The step-out method is the EPA's standard approach for conducting subsurface investigations.
4. No. The concept of an isolation barrier originated in the order issued by the AG to the PRP. The EPA continues to focus on an isolation barrier as a protective measure to prevent the SSE from reaching the RIM.
5. Any radon that may be in the steam from the gas extraction wells would be naturally occurring. At this time, the EPA has no indication that the RIM is impacting the steam/gas from the gas extraction wells.
6. No. Leachate is not considered RIM. Leachate is tested and disposed in accordance with MSD's permit requirements.
7. No. No official document was created in the process of responding to the reporter's questions.



Responses to Questions regarding DNR's landfill fire expert:

1. Stormwater discharge from the site is subject to a National Pollutant Discharge Elimination System (NPDES) permit issued by the Missouri Department of Natural Resources. MDNR is the authorized NPDES permitting authority in the state of Missouri. The EPA has an oversight role. EPA's ASPECT overflight of the site in 2013 to measure surface gamma emissions did not indicate any erosion or off-site migration of RIM in surface soils. Finally, the 2008 ROD remedy of capping the RIM in place was selected, in part, to minimize the chances of any future erosion or migration of RIM from the site.
2. The EPA has been consulted by local emergency response officials who are developing a contingency plan for responding to fires or other emergency response situations at the West Lake Landfill Site. If such an event were to occur, the EPA would assist in an advisory capacity to the local officials who retain authority for responding to fire events.
3. The level of protection needed would be determined by the responding authority, which is the local Fire Department.
4. See response to item 2 above.
5. See response to item 2 above.
6. The EPA has no further response.

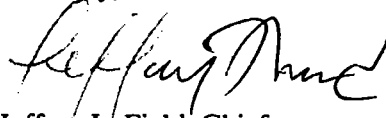
Regarding contractor qualifications, please refer to the following:

[http://www.emsidenver.com/dotnetnuke\\_2/Principals/PaulVRosascoPE/tabid/56/Default.aspx](http://www.emsidenver.com/dotnetnuke_2/Principals/PaulVRosascoPE/tabid/56/Default.aspx)

[http://www.emsidenver.com/dotnetnuke\\_2/Principals/RobertTJclinekPE/tabid/57/Default.aspx](http://www.emsidenver.com/dotnetnuke_2/Principals/RobertTJclinekPE/tabid/57/Default.aspx)

If you have any questions, please contact me at (913) 551-7548.

Sincerely,



Jeffrey L. Field, Chief  
Missouri/Kansas Remedial Branch  
Superfund Division